U.S.EPA (SARIC) COMMENTS ON THE PLAINWELL NO. 2 DAM AREA TIME-CRITICAL REMOVAL ACTION DRAFT DESIGN REPORT ALLIED PAPER, INC./PORTAGE CREEK/KALAMAZOO RIVER SITE

GENERAL COMMENTS

Commenting Organization: U.S. EPA Commentor: Saric
Section: NA Page #: NA Lines #: NA
Original General Comment #: 1

The design report does not indicate how the information from this Removal Action will be incorporated into the Remedial Investigation (RI) and Feasibility Study (FS) reports Operable Unit 5, Area 1. Since this Removal Action is occurring after the development of the RI Work Plan, it must be clear that the nature, objectives and results of this Removal Action will be incorporated into the RI and FS reports. Further, the effectiveness of this removal must be discussed in the RI report to include, at a minimum, water quality analysis, soil and sediment pre- and post- removal concentrations as well as mass removal, and fish monitoring results.

Commenting Organization: U.S. EPA Commentor: Saric
Section: NA Page #: NA Lines #: NA
Original General Comment #: 2

The document does not include any discussion of fish monitoring for determining the effectiveness of the TCRA. Although this information may not be part of the Design Report, a reference to how, when and where fish tissue analysis to further evaluate the effectiveness of the TCRA must be included in this document.

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA Commentor: Saric
Section: 2.2 Page #: 2-5 Lines #: NA
Original Specific Comment #: 2

At the end of the sentence that reads "Removal will be completed to a neat line to be established in the final design, (insert) "with confirmation sampling as described in Section 5.4."

Commenting Organization: U.S. EPA Commentor: Saric
Section: 5.4 Page #: 5-7 Lines #: NA
Original Specific Comment #: 1

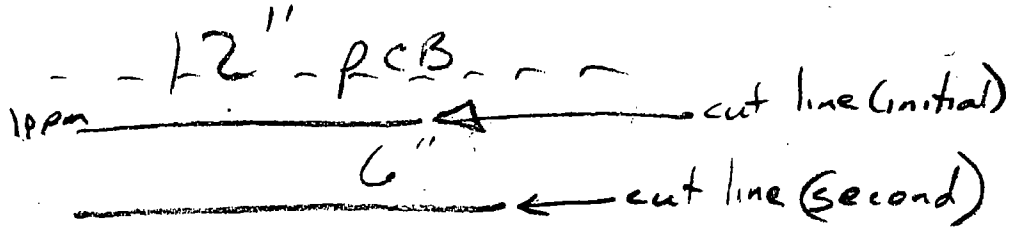
Excavation in the oxbow sediment removal areas must be 6 inches below the cut line. The sampling and analysis procedures described for sediment confirmation units are acceptable. However, if the laboratory data confirm the PCB concentration for a composite sample is greater than 1.0 mg/kg an additional 6 inches must be removed from the entire confirmation unit. The procedures outlined following any additional excavation of sediments are acceptable.

Commenting Organization: U.S. EPA Commentor: Saric
Section: Section 5.4 Page #: 5-8 Lines #: NA
Original Specific Comment #: 3

Soil samples collected for confirmation sampling in Bank, toe-of-bank, and floodplain surface soils should not be taken at 6 inches below the floor of the excavation, but rather of the top 6 inches of the floor of the excavation and composited.

Commenting Organization: U.S. EPA Commentor: Saric
Section: Section 5.4 Page #: 5-8 Lines #: NA
Original Specific Comment #: 4

The document needs to reflect that the split samples taken at 5% of the confirmation units, will be analyzed and compared to the composite data within 60 days after the removal action is complete, for use in the future evaluation of removal and/or remedial projects.



6-12-09

Draft Comments on the Plainwell Dam #2 Draft Design Report

General Comments

Comment 1 - The design report does not indicate how the information from this Removal Action will be incorporated into the Remedial Investigation (RI) and Feasibility Study (FS) reports Operable Unit 5, Area 1. Since this Removal Action is occurring after the development of the RI Work Plan, it must be clear that the nature, objectives and results of this Removal Action will be incorporated into the RI and FS reports. Further, the effectiveness of this removal must be discussed in the RI report to include, at a minimum, water quality analysis, soil and sediment pre- and post- removal concentrations as well as mass removal, and fish monitoring results.

Comment 2 - The document does not include any discussion of fish monitoring for determining the effectiveness of the TCRA. Although this information may not be part of the Design Report, a reference to how, when and where fish tissue analysis to further evaluate the effectiveness of the TCRA must be included in this document. — in Nov. 09

Specific Comments

Section 1.5, Page 1-13 - 3rd objective: "Dispose removed PCB-containing bank soils and sediment in a way that does not present unreasonable risk to human health or the environment." Is this a pre-approved wording? Suggest something more like "...in a way that is protective of human health and the environment." leave unchanged from Act Memo

Section 1.5, Page 1-13 - 5th objective: "Provide a measure of compensatory habitat enhancement for natural resource injuries caused by releases of PCBs from KRSG's facilities." Only noting this here as an interesting objective. Might want to ask during the call what they are envisioning here, possibly the lowered banks or the quality of the seed mixes? Trustees would need to determine to what extent activities go beyond mitigation.

Section 1.6, Page 1-17 - Not sure about "seeding of bare areas with an upland mix and revegetating with native...." Why is an upland mix specified here? Should be a mix appropriate to the expected hydrology that includes annual cover crops that provide quick stabilization without interfering with establishment of native species. Native species should also be included in that first seeding mix, as long as the timing is reasonable for them being able to get established.

Section 2.1, Pages 2-2 – 2.3 - "Segments represented by sample P2BS-35 and P2BS-38 were isolated from other areas targeted for action and were dropped from further consolidation [maybe they meant "consideration"]. Balancing ecological impacts associated with constructing access to these isolated areas against the benefit of removal of the mass of potential PCB source material provided additional support for focusing

removal effort on relatively contiguous larger sections of the banks." Just wanted to bring this to folks' attention and have us consider erosion potential, particularly for P2BS-35 that is clearly on an outer bend. Given the likely high erosion potential, is there some measure that could be taken to reduce erosion potential that could be carried out from the water, e.g. placement of large woody debris or rocks? Consider this in relation to the modeling discussed in Section 2.4. Also, for P2BS-35, need to ensure that partial removal of the adjacent island is not expected to increase erosive forces in the bank – during or after construction.

✓ **Section 2.2, Page 2-5** - At the end of the sentence that reads "Removal will be completed to a neat line to be established in the final design, (insert) "with confirmation sampling as described in Section 5.4."

✓ **Section 2.3, Page 2-6** - Table 2-2 is useful. Trustees would be interested in removal area acreages further subdivided into NWI habitat classifications. It might be easier for all to make those GIS calculations now rather than later, but should happen after the finalization of the hydrodynamic modeling. This could be in the form of a separate memo to trustees rather than a necessary component of the Design Report. Note: Habitat acreages are given in section 3.5, so perhaps these will be sufficient if double-checked after modeling is refined.

put acreage on table or email request from trustees.

✓ **Section 3.3, Page 3-1** – Will a new MDEQ Substantive Requirements Document (SRD) for discharge of treated water to river be required?

✓ **Section 3.5 – Bank Stabilization, Page 3-4** – Define "stable river bed" and ensure consistency with Drawing SR-3.1.

✓ **Section 3.5, Page 3-4** - Coir log implementation practices should be reviewed to improve effectiveness in helping establish vegetation. At Plainwell #1, they appeared to have been placed on the surface and at a fairly high elevation. Success would likely be improved by placing them at a base flow level, trenching them into the soil (as shown in Fig 2-6B – good!), and allowing sediments to deposit into them (~1 month) before vegetating, though live stakes could also be used for the initial installation. The need for toe protection here may mean the median flow elevation as the best that can be done for position on the bank, but we can't expect optimum vegetative success with that configuration.

✓ **Section 3.7** – Should indicate road and staging area materials should be sampled to determine appropriate disposal or reuse. Sampling protocol discussed in Section 5.

Section 5.4, Page 5-7 - Question to response folks – Is the following statement correct and is it what was done at Plainwell #1? "Excavation will initially be considered complete when the bottom elevation is shown to be within 6 inches of the cut line." So they could excavate to 6" above the cut line and be OK to begin confirmation sampling? I have not followed all of the details of the confirmation sampling discussions, so leave review of these sections to others.

Excavation in the oxbow sediment removal areas must be 6 inches below the cut line. The sampling and analysis procedures described for sediment confirmation units are acceptable. However, if the laboratory data confirm the PCB concentration for a composite sample is greater than 1.0 mg/kg an additional 6 inches must be removed from the entire confirmation unit. The procedures outlined following any additional excavation of sediments are acceptable.

I was under the impression that we were applying the Plainwell Impoundment approach that I think goes like this:

- dredge
- confirmation sampling, if results <= 1ppm, finished. If results > 1ppm, redredge.
- confirmation sampling again, if results > 1ppm, OSC discretion

The PRP's contractors are not proposing to do this.

✓ **Section 5.4, Page 5-8** - I also thought we discussed having them push the core to refusal when collecting confirmation sediment samples. Even though they will only analyze the top 6 inches, the total soft sediment depth is a useful value. If they don't want to do this, it is not a deal breaker for me.

✓ **Section 5.4, Page 5-8** - Do we want them to add a note stating that samples collected from each 75'x30' decision unit will not include sediment, i.e., the toe?

I would suggest not doing splits for the 5% of the samples in which we will send all 6 subsamples to the lab. If you do splits you will have situations where the composite value will not equal the mathematical average of the 6 subsamples. For example, what do you do if the composite has a value of 4.9ppm but the mathematical average of the 6 subsamples is 5.1ppm? Do you tell them to excavate another 6 inches because the mathematical average of the 6 subsamples is greater than 5 ppm even though the composite value was less than 5ppm?

Soil samples collected for confirmation sampling in Bank, toe-of-bank, and floodplain surface soils should not be taken at 6 inches below the floor of the excavation, but rather of the top 6 inches of the floor of the excavation and composited.

The document needs to reflect that the split samples taken at 5% of the confirmation units, will be analyzed and compared to the composite data within 60 days after the removal action is complete, for use in the future evaluation of removal and/or remedial projects.

✓ **Section 3.7** – Should indicate road and staging area materials should be sampled to determine appropriate disposal or reuse. Sampling protocol discussed in Section 5.

✓ **Design Drawing G-5.1, Part 2.03(I)** - Live stakes specified as 1" – 3" in diameter. In walking the Plainwell #1 restoration, it looked like there was poor survival of the stakes >2" in diameter. I did not do a quantitative assessment, but this should be considered. Perhaps query JFNew as to what they are observing at Plainwell #1 and how to maximize future live stake survival.

Drawing 5.1, Part 2.05 - I thought Arcadis was proposing using different erosion control materials this time. In fact, haven't they already switched at Plainwell #1 to something more biodegradable than what is specified here. Likewise, I believe they intended to go to a biodegradable staking system, so section 3.03D should be changed to reflect that. Overall, perhaps these specifications should be discussed with JFNew and see if any other adjustments are warranted based on what we learned at Plainwell #1. The only change I found in this "drawing" from the Jan07 draft plans I have from Plainwell #1 was decreasing the sampling frequency of the borrow material by one-half.

Design Drawing G5.2, Table C - The emergent wetland section of this table only includes planting of herbaceous species from seed, yet Table A includes 2 species of dogwood and 3 species of willow that should be planted as live cuttings or container stock.

Design Drawing G-5.2, Table A footnote - The first note below Table A indicates all seed mixes to be applied at 33 pounds per acre, yet the forested wetland mix seeding rates add up to only 30 pounds per acre. which one

Figure 4.1 Schedule - Restoration is shown only for Nov in 2009. For reducing erosion potential, seeding/planting should begin as soon as construction is completed in a given area, within timing guidelines (see Design Drawing G-5.1, section 3.02D). The text in section 1.6 (p. 1-16+) seems to address this better. In any case, bare soil should not be left exposed over the winter break and erosion control measures will need to be anchored well.